

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows.

Please replace the paragraph beginning on page 4, line 1, and ending on Page 4, line 6, with the following amended paragraph:

According to another aspect of the present invention, there is provided a method for fabricating carbon nanotubes grown over a carbon substrate, comprising: uniformly distributing metallic catalyst particles over the carbon substrate; and supplying a carbon source gas at a constant rate under atmospheric pressure and reacting the carbon source gas with the metallic catalyst particles at a temperature of 400-900°C for 1-120 minutes to grow carbon nanotubes over the carbon substrate.

Please replace the paragraph beginning on page 6, line 19, and ending on page 7, line 3, with the following amended paragraph:

FIG. 5 shows a reaction system used in a method for fabricating carbon nanotubes according to the present invention. A bare carbon substrate 4 is inserted into a slit of a quartz boat 5. The quartz boat 5 in which the bare carbon substrate 5 is mounted is placed at the center of a reactor 2. In FIG. 5, reference numeral 3 denotes a heating unit. After argon gas or nitrogen gas is supplied into the quartz tube under atmospheric pressure, carbon source gas is supplied at a constant rate under atmospheric pressure and reacted at 400-900°C for 1-120 minutes to grow carbon nanotubes over the carbon substrate. Suitable carbon source gas that can be used in the present invention may be any gas commonly used by one of ordinary skill in the art, in which preferred carbon source gas includes ethylene, carbon monoxide, carbon dioxide, and methane. If the reaction temperature is less than 400°C, carbon particles, rather than nanotubes, result. If the reaction temperature

is above 900° C, the activity of the metallic carbon particles is reduced, and the growth rate of carbon nanotubes greatly drops. It is preferable that the carbon source gas is supplied at a rate of 10-1000 sccm. If the flow rate of the carbon source gas is less than 10 sccm, the amount of carbon source gas is insufficient to grow carbon nanotubes. If the carbon source gas is supplied at a rate of 1000 sccm, undesirable carbon particles adhere to the grown carbon nanotubes because of the supply of excess carbon source gas.

Please replace the paragraph beginning on page 8, line 6 and ending on Page 8, line 19 with the following amended paragraph:

Platinum (Pt) as a metallic catalyst was dispersed over a water-proofed carbon paper serving as a carbon substrate for 1 minute by electrophoresis, and a uniform dispersion of the Pt particles was confirmed using scanning electron microscope (SEM)-energy dispersive spectroscopy (EDS). The result is shown in FIG. 2. The carbon substrate over which the Pt particles had been uniformly distributed was mounted in a quartz boat and placed at the center of a reactor. The reactor was purged with argon gas at 5000 sccm under atmospheric pressure while the temperature of the reactor was elevated to 500° C. When the temperature of the reactor reached 500° C, acetylene was supplied into the reactor as a carbon source gas at 10 sccm under atmospheric pressure for 60 minute to synthesize carbon nanotubes. Next, while argon gas was supplied into the reactor at 300 sccm under atmospheric pressure, the temperature of the carbon nanotubes were dropped to room temperature to provide carbon nanotubes doped with the Pt particles uniformly to a degree of 1 mg/cm².